

Fiscal Year 2015-16 Information Technology Request

Human Services

Child Welfare Case Management System Replacement

PROGRAM PLAN STATUS and OIT BEST PRACTICES

2016-012

Approved Program Plan?

Date Approved:

According to DHS, it has worked with OIT to develop costs and plans for the system upgrade. OIT staff have reviewed the independent consultant report and have been in consultation with the department throughout the development of the request. DHS says all processes are in conformity with OIT best practices. The implementation will also align with OIT's enterprise health IT architecture model and allow DHS and OIT to connect with the data systems of other agencies and health information partners. DHS says the project will create a single, comprehensive view of clients, allowing for a more efficient and cost effective program delivery.

PRIORITY NUMBERS

Prioritized By Priority

DeptInst 2 of 6

OSPB 6 of 10 Prioritized and recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

<u>Fund Source</u>	<u>Prior Approp.</u>	<u>FY 2015-16</u>	<u>FY 2016-17</u>	<u>Future Requests</u>	<u>Total Cost</u>
FF	\$0	\$2,175,860	\$2,056,014	\$2,056,014	\$6,287,888
GF	\$0	\$4,648,707	\$4,372,192	\$4,372,192	\$13,393,091
Total	\$0	\$6,824,567	\$6,428,206	\$6,428,206	\$19,680,979

ITEMIZED COST INFORMATION

<u>Cost Item</u>	<u>Prior Approp.</u>	<u>FY 2015-16</u>	<u>FY 2016-17</u>	<u>Future Requests</u>	<u>Total Cost</u>
Land Acquisition	\$0	\$0	\$0	\$0	\$0
Professional Services	\$0	\$3,148,588	\$3,057,601	\$3,057,601	\$9,263,790
Construction	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$2,800,000	\$2,800,000	\$2,800,000	\$8,400,000
Miscellaneous	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$324,979	\$306,105	\$306,105	\$937,189
Software Acquisition	\$0	\$551,000	\$264,500	\$264,500	\$1,080,000
Total	\$0	\$6,824,567	\$6,428,206	\$6,428,206	\$19,680,979

PROJECT STATUS

This is a new, never-before requested project.

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Human Services (DHS) is requesting a combination of state funds and federal funds spending authority to enhance and modernize the Trails case management system, which is the state's Statewide Automated Child Welfare Information System (SACWIS), and associated infrastructure. The project will modernize Trails to allow for faster implementation of system modifications and to accommodate changing child welfare practices. Critical requirements identified by DHS include:

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- mobile device compatibility and support to provide secure systems that meet industry standards;
- data integration to help promote the effective use and availability of data across multiple systems that influence child welfare, including the ability to add unstructured or external data; and
- profile-driven capabilities for data administration and ease of use by providing user-appropriate interfaces (agency-specific and/or job function related).

The department says new development activities for Trails will be defined by a dedicated team of internal employees and contractors using an agile methodology. For example, the Intake Module will be converted and implemented. While the Intake Module is implemented, the next module will be developed and converted. A contract development team will be located in the Governor's Office of Information Technology (OIT), consisting of one project manager, one technical architect, one half-time engagement/integration manager, eight application developers, four business analysts, and four technical analysts. DHS states that these employees will be involved with the project for three years and that the modernization project requires contract staff to assist with design and build activities. The infrastructure will include 20 IIS8 servers each with 16-GB of RAM, a 250-GB hard drive, and 4+ cores.

PROJECT JUSTIFICATION

According to the DHS, Trails is a critical component to the county child protection practices. The benefit of augmenting an existing system leverages the previous investment, workforce familiarity, and existing working relationships with OIT. Changes and extensions to the system have been supported with consensus from DHS, OIT, and users. The group agrees that a more concerted, focused effort is required to enable better interfaces, reporting, and service outcomes. The department also says understaffed county departments of human services will benefit from improved case management efficiencies. The county staffs are struggling to input information into the Trails system even with state-provided modifications and improvements. Updating the Trails system will allow greater flexibility and faster data input.

DHS says Trails is 13 years old and is in desperate need of a major overhaul. It was originally purchased from another state and tailored to fit Colorado's needs. The system is used for the Divisions of Child Welfare, Youth Corrections, Early Childhood, and Administrative Review. It is also used by the Office of Child Protection Ombudsman, 64 county departments of human and social services, and other contract providers. The Trails system has been compliant with SACWIS since 2011.

Additionally, Trails integrates with 11 other systems with 87 unique interfaces within DHS and other state agencies. Limitations of the Trails system, identified by both internal and external stakeholders, include: outdated system architecture, limited mobile system access, redundant data entry, missing data interfaces, data integrity risks, inability to augment case data with attachments, and ad hoc reporting capabilities. Users are required to enter duplicate information on multiple pages and have difficulty navigating the complex system interface. DHS also says the system response time is slow due to a client-server based technology. The project includes a complete overhaul of the 11 state agency systems and 87 data entry interfaces. According to the department, standardization of the unique interfaces will improve timeliness of data entry, increase mobile access, and increase maintainability. The system will be better able to report measurements related to federal safety and permanency goals.

The department hired a consultant in FY 2013-14 to do an independent analysis of the Trails system. The consultant recommended modernizing the system. The department says this will be achieved through technology upgrades and enhanced data interfaces. Benefits include: a modern, effective, and elegant solution that is easy to navigate and supports common data views; greater reporting flexibility and data analytic capabilities; and greater system interoperability to facilitate data sharing and overall case management outcomes. Furthermore, DHS says Trails is critical to the Governor's Child Welfare Plan 2.0 and that modernizing Trails will result in greater efficiencies that allow caseworkers to make faster and better informed responses, leading to the improved safety and well-being of Colorado children.

Project Alternatives. According to DHS, the proposed approach was compared to several other options, including leaving the existing system alone and doing nothing. The department says the do-nothing approach is not feasible given the current state of the Trails system. A full-scale replacement with a commercial off-the-shelf (COTS) solution was also considered, but the department deemed that the risks (cost, time, degree of organization change, customization, data conversion, and training) outweighed the benefits. According to vendor research, for other states that chose a full COTS replacement, costs ranged from \$26 to \$35 million, with annual operating costs between

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\$6 and \$7 million. Of the states that are currently enhancing an existing system, Wisconsin provided \$4.3 million annually for vendor services, and Washington, D.C. converted its system through a vendor contract for \$4.6 to \$5 million annually during its 18-month project.

PROGRAM INFORMATION AND IMPLEMENTATION PLAN

The department says it plans to use an agile/iterative continued improvement process to provide incremental system releases with maximum value to the organization. It also says that an "Improvements Wish List" will be prioritized after each iteration and that a new set of modifications will be updated into the project plan as needed. Iterations will be determined by considering both distinct and dependent business areas, and priorities will be documented within the project management plan. DHS says the project team will work in conjunction with program business partners and stakeholders to define the order of operations for design, development, and implementation.

COST SAVINGS / IMPROVED PERFORMANCE OUTCOMES

The department did not quantify any associated cost savings. According to DHS, the system upgrade will provide easier use, adaptation, and maintenance. Improved performance outcomes will be designed to: allow faster implementation of system modifications to better reflect changing child welfare practices; allow users a more comprehensive view of children served across programs; enable caseworkers to be more effective and responsive; provide improved reporting capabilities; and improve caseworker time management and workload by being accessible through the Internet and mobile devices.

SECURITY AND BACKUP / DISASTER RECOVERY

According to the department, the infrastructure for the Trails application is housed in a CenturyLink Federated Cloud environment. The department says that there are defined protocols for security and backup that have been amended to ensure adherence to SACWIS requirements. The Chief Information Security Officer will review and approve the Backup and Recovery Plan for the project.

BUSINESS PROCESS ANALYSIS

The department says that an independent report included analysis of methods used to conduct a thorough and comprehensive view of the current Trails system and potential replacement alternatives, including:

- developing questionnaires for stakeholder interviews and vendor responses;
- conducting stakeholder and state interviews;
- soliciting vendor information;
- establishing a repository of reference materials;
- analyzing relevant information; and
- developing evaluation tools.

PROJECT SCHEDULE

	Start Date	Completion Date
Contracting	N/A	N/A
Implementation	July 2015	January 2018
Equipment	July 2015	March 2018
Completion		June 2018

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OPERATING BUDGET

The department has submitted an accompanying operating budget request to the Joint Budget Committee for \$181,240 (including \$150,429 in General Fund and \$30,811 in federal funds spending authority) and 2.7 FTEs in FY 2015-16. The department also expects an operating budget increase of \$167,131 and 3.0 FTE in FY 2016-17. The department says the on-going cost for leased server capacity associated with the 20 new servers is unknown at this time.

STAFF QUESTIONS AND ISSUES

1. This request calls for hardware including twenty servers that will consist of 16 GB of RAM, 250 GB Disk, IIS8, and 4+ Core(s). Please explain how the quantity and sizing for the servers was derived?

The Office of Information Technology and Trails in work sessions with the Division of Child Welfare Services and other entities derived the estimate given the requirements indicated in the Istonish report. Trails currently has 28 Citrix servers to support the Production environment. The 28 existing servers have limited capacity to support Trails on a modernized platform. 20 new servers have been requested to accommodate the proposed platform and are necessary to support Trails modernization. This number was estimated based on anticipated requirements to use the most up to date, newest technologies. Moving forward utilizing a phased approach, the 28 existing servers will be partially migrated along with the 20 new servers.

2. Does the department anticipate any costs savings from the system upgrade?

Upgrading will improve efficiency for child welfare case managers and field staff for service delivery to children and families. Modernizing Trails creates workflow efficiencies for Colorado caseworkers through easier navigation and simplified reporting. This could include simplifying the capturing of data through document imaging technology, programming the system to automatically populate duplicative fields, and allowing remote access to the system through mobile devices. Tablets and other mobile technology was previously distributed to counties, and the Trails application was accessible on those devices, however, there is not a mobile application, or a mobile friendly version of Trails. Cost savings will be realized in the form of effective service delivery, response time and usability. The workload study work group has made the recommendations to improve efficiencies in the system, such as, better mobile access and functionality.

3. How many caseworkers/users within the state are currently accessing Trails?

Currently, there are approximately 6,000 active Trails users including Division of Child Welfare, Counties and Division of Youth Correction users.

4. What are the 11 other systems that Trails integrates with and under which agency does each system fall?

11 Systems, including Federal and State, integrates with Trails:

- CFMS (County Financial Management System) - CDHS
- NCANDS (National Child Abuse and Neglect Data System) - Federal Administration for Children and Families (ACF)
- AFCARS (Adoption and Foster Care Analysis and Reporting System) - Federal Administration for Children and Families (ACF)
- CHATS (Child Care Automated Tracking System) - CDHS
- CCCLS (Colorado Child Care Licensing System) - CDHS
- CBMS (Colorado Benefits Management System) - CDHS
- ACSES (Colorado Automated Child Support Enforcement System) - CDHS
- SIDMOD (State Identification Module) - CDHS
- ICON/IPON (Colorado Integrated Criminal Justice Information System) – State Judicial Department
- NYTD (National Youth in Transition Database) – Federal Administration for Children and Families (ACF)

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- CICJIS (Colorado Integrated Criminal Justice Information System) – various State Departments

5. How will reporting capabilities be improved by the system upgrade, and for what purposes are reports most often required?

Reports are required for multiple purposes ranging from court documentation, treatment planning, and fiscal transactions. Improvements realized from the new platform include: server based report processing; platform independent processing; and greater flexibility on adapting to report requirement changes. The proposed system upgrade also allows for the addition of BI (Business Intelligence) and predictive analytics, which has the potential to considerably advance the nature of reporting.

6. Explain in more detail how the upgrade will allow greater access to the system with mobile technology.

The current Trails technological platform makes developing mobile solutions cumbersome and time consuming, which in turn, is ineffective and costly. The proposed solution/platform allows mobile application development to more securely and efficiently sync with Trails. Additionally, users who access Trails using mobile devices will experience a smoother user interface that is more compatible with smartphones and tablets resulting in efficient access. These modified applications and mobile versions are optimized for a smaller screen, and devices that have slower, lower powered processing chips.

7. Explain how the new system will have increased interoperability with other systems.

The new proposed concept will allow standardizing interfaces by enabling service oriented architecture which in turn will allow Trails interfaces to be easily configured, maintained and shared across agencies.

8. Where are federal funds coming from for the upgrade and have they been secured?

Federal Title IV-E dollars will be applied at a 50% match. After factoring in penetration rates, the federal funds will approximate 34% of General Fund expenses. Trails is a SACWIS (State Automated Child Welfare Integrated System) compliant system. Currently, only 11 states qualify for this Federal match. Modernizing Trails allows Colorado to protect our current SACWIS compliance status including the federal match for system upgrades and maintenance. Funding would be secured once the General Fund match is approved.

About Trails SACWIS compliance –

The term SACWIS came from Federal legislation through ACF (Administration for Children and Families). This 1993 legislation (and subsequent legislation as well), provided states with the opportunity to obtain enhanced funding through the Title IV-E program of the Social Security Act to plan, design, develop, and implement a Statewide Automated Child Welfare Information System (SACWIS).

In order to justify and continue the ongoing federal funding for the development and maintenance of the system, states must demonstrate that they have implemented, or are in the process of implementing over 80 separate requirements that ACF has outlined. Those requirements define what a SACWIS compliant system must do. For years Colorado has been working on many of the different requirements. Some were relatively easy or already in place, but some took months or even years to implement.